Kennedy NASA Procedural Requirements

Effective Date: **February 10, 2020**

Expiration Date: **February 10, 2025**

Responsible Office: **Spaceport Integration and Services**

COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

National Aeronautics and Space Administration

John F. Kennedy Space Center

Change Log

Date	Revision	Description
7/21/09	Basic	New document
1/11/10	Basic-1	Admin change to correct Table 3-1. KDP-KSC-P-3010, KDP-KSC-P-3014, and KDP-KSC-P-3015 titles were corrected and KDP-KSC-P-3019 was added to the table.
7/12/10	Basic-2	Admin change to correct the title of KDP-KSC-P-3014 on Table 3-1.
8/18/14	Basic-3	Expiration date extended due to review and rewrite of KNPR and to comply with NPR 1400.1, NASA Directives and Charters Procedural Requirements.
9/24/14	Basic-4	Expiration date extended due to review and rewrite based on KSC reorganization's effects on associated documents and processes.
2/19/15	A	SIGNIFICANT CHANGES: • Added section 1.1-1.3 • Switched "NASA Protective Services Contract" to "Kennedy Protective Services Contract" • Added 5.1.6 h
7/3/18	A-1	Admin change to update Responsible Office on first page from Center Operations Directorate to Spaceport Integration and Services.
2/10/20	B	The requirements and responsibilities were revalidated as written with administrative and formatting changes to content and structure to comply with NPR 1400.1, NASA Directives and Charters Procedural Requirements. Admin change to update contract, directorate, and division names: • KPSC to KPSC II • Public Affairs to Communication and Public Engagement • Ground Processing Directorate to Spaceport Management and Integration Division • Facilities Systems and Services Division to Technical Performance and Integration Division

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PREFACE

P.1 PURPOSE

This is the National Aeronautics and Space Administration's (NASA) Kennedy NASA Procedural Requirement (KNPR) that establishes uniform requirements for the effective preparation for, mitigation of, response to, and recovery from a variety of emergency situations. The Comprehensive Emergency Management Plan (CEMP) establishes requirements and responsibilities for response to major emergencies where multiple emergency response forces and supporting agencies are involved.

P.2 APPLICABILITY

a. This directive applies to NASA and NASA contractor organizations to the extent specified in their contracts, and other government agencies and contractors operating within the boundaries of Kennedy Space Center (KSC).

b. The CEMP is applicable when NASA and NASA contractor organizations develop internal supplemental emergency plans, standard operating procedures, or emergency checklists. The Kennedy Documented Procedures (KDP) listed in Table A of this plan applies to all emergency responders at KSC.

c. In this directive, all mandatory actions (i.e., requirements) are denoted by statements containing the term "shall." The terms "may" or "can" denote discretionary privilege or permission, "should" denotes a good practice and is recommended, but not required, "will" denotes expected outcome, and "are/is" denotes descriptive material.

d. In this directive, all document citations are assumed to be the latest version unless otherwise noted.

P.3 AUTHORITY

a. Presidential Policy Directive 8: National Preparedness

b. Executive Order 12148, Federal Emergency Management

c. NASA Policy Directive (NPD) 1000.3, The NASA Organization

d. NPD 1040.4, NASA Continuity of Operations (COOP)

e. NPD 8710.1, Emergency Management Program

f. NASA Procedural Requirement (NPR) 1040.1, NASA Continuity of Operations (COOP) Planning Procedural Requirements

g. NPR 8715.2, NASA Emergency Preparedness Procedural Requirements

P.4 APPLICABLE DOCUMENTS AND FORMS

a. 42 United States Code, Section 5121-5204, Disaster Relief

b. Executive Order 12656 dated November 18, 1988, Assignment of Emergency Preparedness Communications Functions

c. Executive Order 13618, dated July 6, 2012, Assignment of National Security and Emergency Preparedness Communications Functions

d. 29 Code of Federal Regulations 1910.165, Occupational Safety and Health Administration

e. Kennedy NASA Policy Directive (KNPD) 1150.24, KSC Councils, Boards, and Committees

f. KNPR 4000.1, Supply and Equipment System Manual

g. KNPR 3792.1, Employee Assistance Program (EAP) Psychological Support Preparedness Plan in the Event of A Critical Incident

h. KSC-DES-0056, Emergency Preparedness Officer

i. KDP-KSC-P-3001, Warning, Alerting, and Evacuation

j. KDP-KSC-P-3002, Command, Control, and Communications

k. KDP-KSC-P-3003, Fire Response

l. KDP-KSC-P-3004, Launch Accidents

m. KDP-KSC-P-3005, Adverse Weather

n. KDP-KSC-P-3006, Kennedy Space Center Tropical Storm and Hurricane Preparation

o. KDP-KSC-P-3007, Damage Assessment and Recovery

p. KDP-KSC-P-3008, Hazardous Materials Emergency Response

q. KDP-KSC-P-3009, Aircraft Emergencies

r. KDP-KSC-P-3011, Radiological Emergency During a Launch Mishap

s. KDP-KSC-P-3012, Loss of Utilities

t. KDP-KSC-P-3013, Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Response

u. KDP-KSC-P-3015, Mutual Aid Assistance for Emergency Support

v. KDP-KSC-P-3016, Mass Casualty Response

w. KDP-KSC-P-3017, Tsunamis

x. KDP-KSC-P-3018, National Incident Management System Component Structure at Kennedy Space Center

y. KDP-KSC-P-3019, Pandemic Response Plan

z. KDP-P-3701, Continuity of Operation Planning (COOP) Emergency Funding

aa. U. S. Department of Homeland Security, FEMA 501, National Incident Management System Guideline for the Credentialing of Personnel, August 2011

P.5 MEASUREMENT/VERIFICATION

None.

P.6 CANCELLATION

This revision cancels KNPR 8715.2, Rev. A-1, Comprehensive Emergency Management Plan (CEMP).

/original signed by/

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Nancy P. Bray
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CHAPTER 1. BASIC EMERGENCY MANAGEMENT

1.1 Goal

This KNPR specifies actions to support the KSC mission under emergency conditions and follows the response protocol outlined in the National Response Framework (NRF) and the National Incident Management System (NIMS). This KNPR outlines procedural requirements for implementing the KSC Emergency Management Program (EMP), in accordance with NPD 8710.1, Emergency Management Program and NPR 8715.2, NASA Emergency Preparedness Procedural Requirements. Following the provisions of Executive Order 13618, Assignment of National Security and Emergency Preparedness Communications Functions, Executive Order 12148, Federal Emergency Management, and Executive Order 12656, Assignment of Emergency Preparedness Communications Functions, NASA shall establish emergency preparedness, response, recovery, and mitigation procedures that:

a. Protect lives.

b. Protect the environment.

c. Minimize loss and damage to NASA resources.

d. Provide for continuous operation or timely resumption of mission-critical functions, services, and infrastructure.

e. Aid in the recovery and timely resumption of normal operations.

f. Assist in mitigating hazards and minimizing the effects of natural disasters and technological emergencies.

g. Support local, state, and Federal agencies and appropriate emergency response authorities.

1.2 Objective

The objective of this KNPR is to document Center emergency management requirements and implement procedural direction unique to KSC by effectively and efficiently conveying those requirements to employees, customers, and the KSC populace.

1.3 Responsibilities

1.3.1 The heads of primary organizations, contract managers, and contract technical representatives are responsible for ensuring compliance with the provisions of this KNPR on the civil service and contractor personnel who support programs for which they have primary responsibility.

1.3.2 Partner organizations are responsible to ensure all applicable operations, activities, equipment, and facilities are in compliance with all Federal, State of Florida, and local emergency preparedness, mitigation, response and recovery statues, regulations, and ordinances. Partners are commercial entities using KSC facilities. Unless stated otherwise in

their agreement, the Partner is solely responsible for compliance with aforementioned emergency management regulatory requirements including NIMS response and documentation laws.

CHAPTER 2. SITUATIONS AND ASSUMPTIONS

2.1 Situations

2.1.1 Hazardous operations at KSC take place at different locations and could potentially result in wide-ranging emergencies and disruptive events. Site-specific emergency management plans, other than the KDPs listed in Table A of this document, shall be developed by each organization conducting hazardous operations and processes. Copies of these plans are provided to the NASA Emergency Management Officer (NEMO) for review and approval. The NEMO retains these documents for dissemination to emergency responders.

2.1.2 NASA KSC, partner organizations, and contractor activities, where specified by contract, develop and maintain an all-hazards emergency preparedness, response, mitigation, and recovery program. The program is based on documented plans and procedures that are reviewed by the NEMO which address the five NIMS components described in KDP-KSC-P-3018, National Incident Management System Component Structure at Kennedy Space Center, Chapter 3 of the CEMP, and other Federal requirements and directives.

2.1.3 NASA is required to provide interagency support in accordance with the NRF. The NRF supersedes the National Response Plan. These support services are coordinated through the multiagency coordinating system. Local and regional interagency support may also be requested from NASA Headquarters and other NASA Centers in accordance with mutual aid and memorandums of agreement.

2.2 Assumptions

2.2.1 Any of the incidents identified in the KSC Hazard/Threat Identification (Table B) may cause large numbers of casualties, great loss of property, or degradation of the NASA mission.

2.2.2 KSC has continuous potential exposure to known hazards.

2.2.3 KSC must be adequately and reasonably prepared to carry out initial disaster response and short-term recovery actions on an independent basis. Outside assistance may be available for emergencies affecting KSC.

2.2.4 National emergencies or disasters that may affect KSC can occur at any time. For some events such as hurricanes or flooding, dissemination of warning and increased readiness measures may be possible. Other events, such as tornadoes, lightning strikes, acts of terrorism, or civil disturbances may occur without warning.

2.2.5 Senior management officials recognize their responsibilities for the safety and well-being of employees and the public and execute their responsibilities in the planning, implementation, and maintenance of the CEMP.

2.2.6 Proper implementation of this plan will help reduce or prevent further injury to personnel, loss of life, damage to the environment and critical infrastructure, and the disruption of mission essential functions and services.

2.2.7 The Kennedy Protective Services Contract (KPSC) II, Emergency Management Office, is the primary contractor support to the EMP at KSC.

2.2.8 Each major KSC contractor and partner organization provides a point of contact to the KPSC II Emergency Management Office. These points of contact function as the emergency coordinator for their respective company.

2.2.9 All personnel having the designation of “emergency responder” have completed and will maintain the requisite training in accordance with NIMS, in order to satisfy the requirements as an emergency responder at KSC. See KDP-KSC-P-3018 for the NIMS training requirements at KSC.

2.2.10 Normal administrative policies and procedures may not be adequate during emergencies.

CHAPTER 3. CONCEPT OF OPERATIONS

3.1 Office of Protective Services

At the Agency level, NPR 8715.2 requires the Office of Protective Services (OPS) to coordinate all Agency responses to the multiagency coordinating system, as outlined in the NRF, and coordinate planning and support between NASA Centers and other Federal departments and agencies. The Assistant Administrator for the OPS is responsible for the overall management of the NASA EMP. Each Center Director shall ensure development of that portion of the CEMP applicable to the mission and needs of their respective Center.

3.2 Kennedy Space Center Emergency Management

KSC employs a fully operational emergency response capability, ready to respond to local emergencies and major natural or technological disasters on KSC property or at other NASA Centers. The KSC emergency responders are capable of supporting the appropriate tasking (in accordance with the NRF) as coordinated through the Headquarters Emergency Operations Center (EOC).

3.2.1 At KSC the Emergency Management Planning Committee (EMPC) is responsible for planning, developing exercises, and recommending changes and modifications to the CEMP. The NEMO chairs this committee and the KPSC II provides the secretariat support and administration of the EMPC.

3.2.2 At KSC the tenets of the NIMS Incident Command System (ICS) have been adopted and incorporated in all KDPs for emergencies, as described in KDP-KSC-P-3018. These emergency-related KDPs are an extension of the CEMP (Table A).

3.2.3 A State of Emergency Declaration, often given by local, state, and Federal entities, is a management procedure during an emergency. If the emergency is a natural or technological disaster that exceeds KSC response capabilities, the KSC Center Director or designee declares a state of emergency, initiates coordination with local emergency response agencies, and notifies the OPS both during and outside normal work hours. The OPS notifies the NASA Administrator and appropriate Mission Support and Mission Directorate offices and requests and coordinates assistance from other NASA organizations and Federal agencies as necessary. The KSC EOC contacts the local Brevard County and Headquarters EOC during response to, and recovery from the disaster.

Table A: Kennedy Documented Procedures for Emergencies

Procedure Number	Title
KDP-KSC-P-3001	Warning, Alerting, and Evacuation
KDP-KSC-P-3002	Command, Control, and Communications
KDP-KSC-P-3003	Fire Response
KDP-KSC-P-3004	Launch Accidents
KDP-KSC-P-3005	Adverse Weather
KDP-KSC-P-3006	Kennedy Space Center Tropical Storm and Hurricane Preparation
KDP-KSC-P-3007	Damage Assessment and Recovery
KDP-KSC-P-3008	Hazardous Materials Emergency Response
KDP-KSC-P-3009	Aircraft Emergencies

Procedure Number	Title
KDP-KSC-P-3011	Radiological Emergency During a Launch Mishap
KDP-KSC-P-3012	Loss of Utilities
KDP-KSC-P-3013	Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Response
KDP-KSC-P-3015	Mutual Aid Assistance for Emergency Support
KDP-KSC-P-3016	Mass Casualty Response
KDP-KSC-P-3017	Tsunamis
KDP-KSC-P-3018	National Incident Management System Component Structure at Kennedy Space Center
KDP-KSC-P-3019	Pandemic Response Plan

These KDPs are accessible through the KSC Business World at: http://businessworld.ksc.nasa.gov/.

3.3 National Incident Management System Component Requirements

3.3.1 In compliance with Homeland Security Presidential Directive 8, KSC has adopted NIMS as the response structure for all emergencies at KSC including the emergency support functions listed in the NRF and the KDPs listed in Table A of this plan. A complete description of NIMS is provided by the U.S. Department of Homeland Security in FEMA 501, National Incident Management System Guideline for the Credentialing of Personnel, August 2011.

3.3.2 NIMS is the standard on-scene, all-hazards incident management system for firefighters, hazardous materials and rescue teams, security and law enforcement, and emergency medical teams. This includes initial reporting and dispatch from the Protective Services Control Center followed by activation of the EOC. The NIMS structure and basic components adopted at KSC are contained in KDP-KSC-P-3018. The components include:

a. Preparedness

b. Communication

c. Resource Management

d. Command and Management

e. Ongoing Management and Maintenance

CHAPTER 4. PHASES OF EMERGENCY MANAGEMENT

KSC complies with the Phases of Emergency Management described in NPR 8715.2. The phases described are mitigation, preparedness, response, and recovery. These are addressed in paragraphs 4.1 through 4.4 below.

4.1 Mitigation

Mitigation activities are designed to prevent an emergency by minimizing adverse impacts through a combination of risk assessment and preventive measures. The actions that have been implemented at KSC to mitigate risk are as follows:

a. Identification of critical facilities that require shutters during a hurricane are identified in KDP-KSC-P-3006, Appendix I.

b. KSC complies with Federal and NASA regulations and state or local codes where applicable. A list of all compliance documents is included in contracts, construction projects, and programs at KSC. Online access to the National Fire Protection Association and Occupational Safety and Health Administration directives are available to employees as well as an online Safety Data Sheet registry.

c. A Center-wide Paging and Area Warning System, Tornado Area Warning System, and a pop-up desktop warning message are used to notify employees of an emergency. Bells, lights, sirens, and other warning devices are used in hazardous operations facilities to warn employees. Evacuation procedures are online for employees to review and each employee participates in an evacuation drill annually.

d. A scientific study has been conducted on mission essential facilities at KSC regarding wind and storm surge damages. Major upgrades to flight hardware facilities and enhancements to the EOC have provided a greater survive-to-operate posture to valuable mission resources. The NEMO maintains the documentation on these studies.

e. Facility strengthening and storm protection are a major concern in designing new projects and renovating existing facilities at KSC. Alarm detection systems and fire suppression systems are a mandated requirement for new construction on KSC.

f. Specific threat levels at KSC warrant an elevation in protection for employees. Established documented procedures are developed and posted to meet the specific threat level.

g. KSC has developed Mutual Aid and Memorandums of Agreement, Joint Operating Procedures and Memorandums of Understanding with local city, county, and other government and state entities for support during an emergency. These agreements and memorandums are available online (via the KSC TechDoc System) and are maintained by the NASA Protective Services Office.

4.2 Preparedness

KSC developed and maintains the EMP which includes preparedness activities, programs, plans, and systems to ensure readiness and enhance response capabilities to an emergency or disaster. The following list contains key aspects of this program:

a. The NEMO has overall responsibility for all aspects of the CEMP.

b. Table B contains KSC's threat identification and analysis.

c. KSC has identified a list of resources available to support emergencies. The list is maintained by the KPSC II. The list is provided to the Headquarters EOC for Agency use in supporting other NASA Centers during a disaster.

d. Required NIMS training has been identified and a procedure established to complete the training. The NIMS training completion is documented in the Web Based EOC (WebEOC) software product maintained by the KPSC II. See KDP-KSC-P-3018 for KSC NIMS.

e. Exercises and drills are required by NIMS and accomplished by several different training assessment groups and committees as outlined in KDP-KSC-P-3018. Drills and exercises are planned, evaluated, and documented.

Table B: Kennedy Space Center Hazard/Threat Identification

POSSIBLE HAZARD	PROBABILITY	VULNERABILITY	COMMENTS
Fire/Explosion	High	Disaster	Elevated Potential
Utilities Failure	Medium	Emergency	
Water Supply Contamination	Medium	Emergency	
Flood	Medium	Emergency	
Aircraft Crash	Medium	Disaster	
Attack (Nuclear Or Conventional)	Low	Disaster	
Launch Vehicle Accident	High	Disaster	National Attention
Tornado	High	Disaster	
Hazardous Materials	High	Disaster	Worst Case: Launch Operations
Radiological Incident	Low	Emergency	
Chemical/Biological Warfare	Low	Disaster	
Highway/Transport Accidents	Medium	Emergency	
Wildfire	Medium	Emergency	
Civil Disorder	Low	Emergency	
Terrorism	Low	Emergency	
Hurricane/Tropical Storm	High	Disaster	Occurs Frequently

4.3 Response

The KDPs listed in Table A contain procedures and checklists to support the specific emergency response activity, which include, but are not limited to, the following:

a. Activation of KSC emergency response teams and mobilization of designated first responders and essential follow-on support personnel as depicted in Table C.

b. Establishing a primary and alternate EOC. See Paragraph 4.3.1 below.

c. Use of the KDP-KSC-P-3018 as the designated response operating protocol and use of the standardized ICS documentation forms contained within the KDP.

d. Coordination with KSC internal organizations, interagency response and management teams, as well as with local, state, and Federal agencies.

e. Use of the ICS, as shown in Figure 1.

Table C: First Responders and Available Follow-on Support

Initial/First Responders	Follow-on Support
Fire Department	Emergency Management
Emergency Medical/Firefighter Paramedics	Facility Support, Public Works
Security	Liquid Propellants
Security	Photographic/Video Support
Security	Appropriate Safety Representative (Contractor and NASA)
Security	Hazardous Materials, Spill, Leak, Cleanup Support
Security	Launch Processing Technical Support
Security	Transportation
Security	Roads and Grounds
Security	Environmental Health Services

4.3.1 Activating the EOC (See Table D)

The KSC EOC serves as the central management and support center for emergency operations. The primary EOC is located in Building K6-0900, Room 2R21. The alternate EOC is in Building M7-0355, Room 4297. The Emergency Support Function (ESF) representatives may be called to the EOC to coordinate resources requested by the Incident Commander (IC). See Table D for ESF crosswalk. Once activated, the EOC Manager shall:

a. Coordinate resources necessary to support the IC.

b. Provide status reporting to KSC management authorities.

c. Notify and report to outside authorities, as required.

Table D: Emergency Support Function Crosswalk

ESF	Title	Responsible Party
	EOC Manager	**NASA Emergency Management Officer**
1	Transportation	Base Operations and Spaceport Services (BOSS)
2	Communication	Kennedy Infrastructure, Applications and Communications
3	Public Works and Engineering	BOSS
4	Firefighting	KPSC II Fire
5	Emergency Management	NEMO, KPSC II, NASA Test Director
6	Mass Care, Housing, and Human Services	Medical and Environmental Support Contract
7	Resource Support	BOSS
8	Public Health and Medical Services	Medical and Environmental Support Contract
9	Urban Search and Rescue	KPSC II Fire
10	Oil and Hazardous Materials Response	KPSC II Fire
11	Agriculture and Natural Resources	Medical and Environmental Support Contract
12	Energy	BOSS
13	Public Safety and Security	KPSC II
14	Long Term Community Recovery/Mitigation	NEMO
15	NASA Public Affairs Officer	Communication and Public Engagement
16	Flight Hardware and Ground Support Equipment Integration	Spaceport Integration and Services directorate
17	Propellants and Life Support	Kennedy Propellants and Life Support Services
18	Construction of Facilities Integration	Engineering directorate

4.3.2 The IC has the responsibility and authority to:

a. Conduct an overall assessment of the situation.

b. Assume command and control of the emergency.

c. Direct implementation of the CEMP and applicable KDPs.

d. Determine response strategies and the Incident Action Plan.

e. Activate necessary resources to respond to the emergency.

f. Order an evacuation of the affected areas.

g. Oversee all incident response activities (see Figure 1 and 2).

h. Request support vehicles and equipment to support the emergency.

NOTE: During launch vehicle operations and hazardous processing operations in the Launch Complex-39 area, the NASA Test Director (NTD) exercises management and control of emergency systems and initial response operations until the arrival of the IC. While in response the NTD advises the IC of the emergency, potential hazards and personnel not accounted for. Once the IC arrives and establishes command of emergency operations and response, the NTD will continue to coordinate with and provide information and support to the IC.

Incident Command System

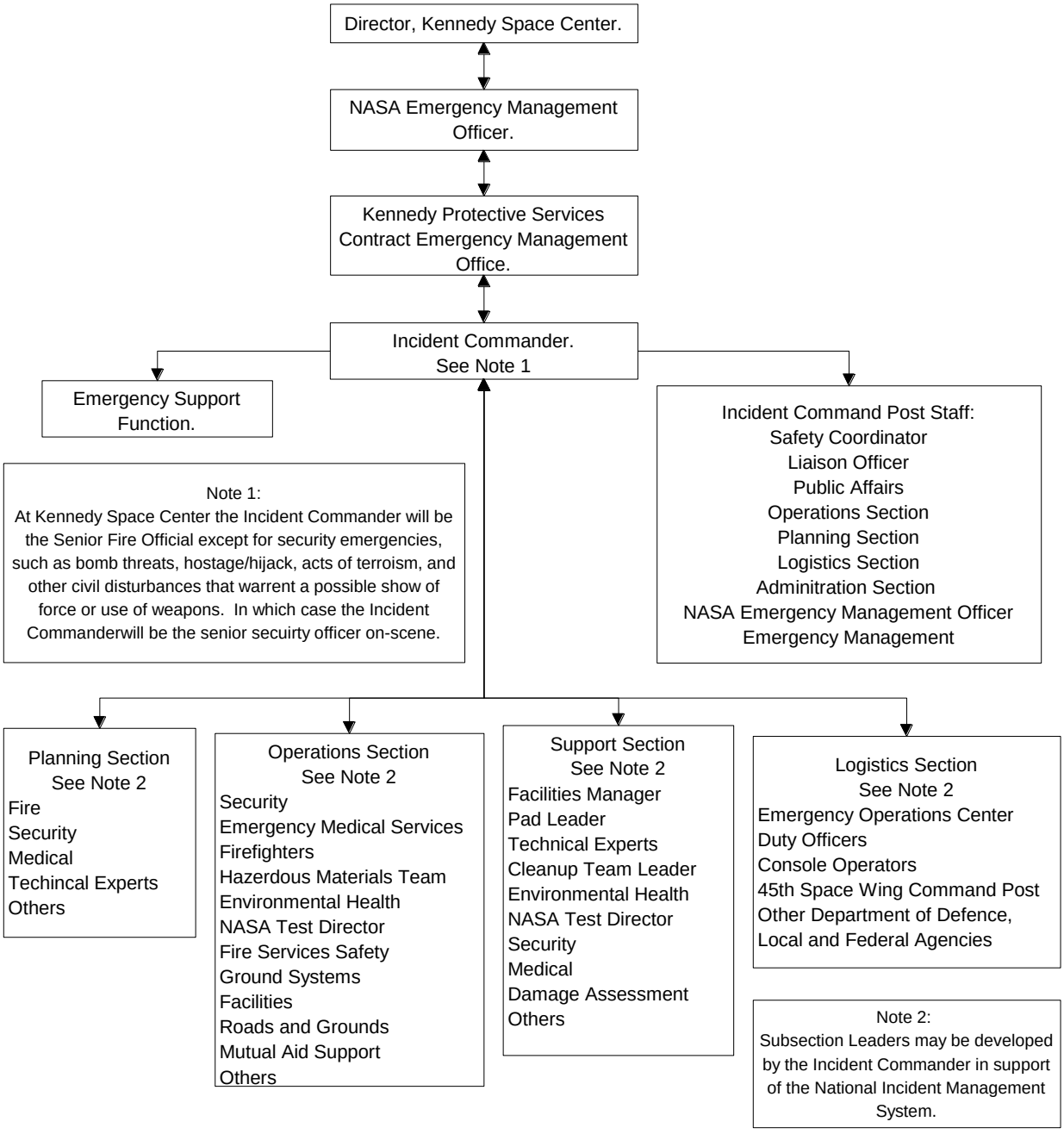

Figure 1, Incident Command System

Emergency Response Flow Process

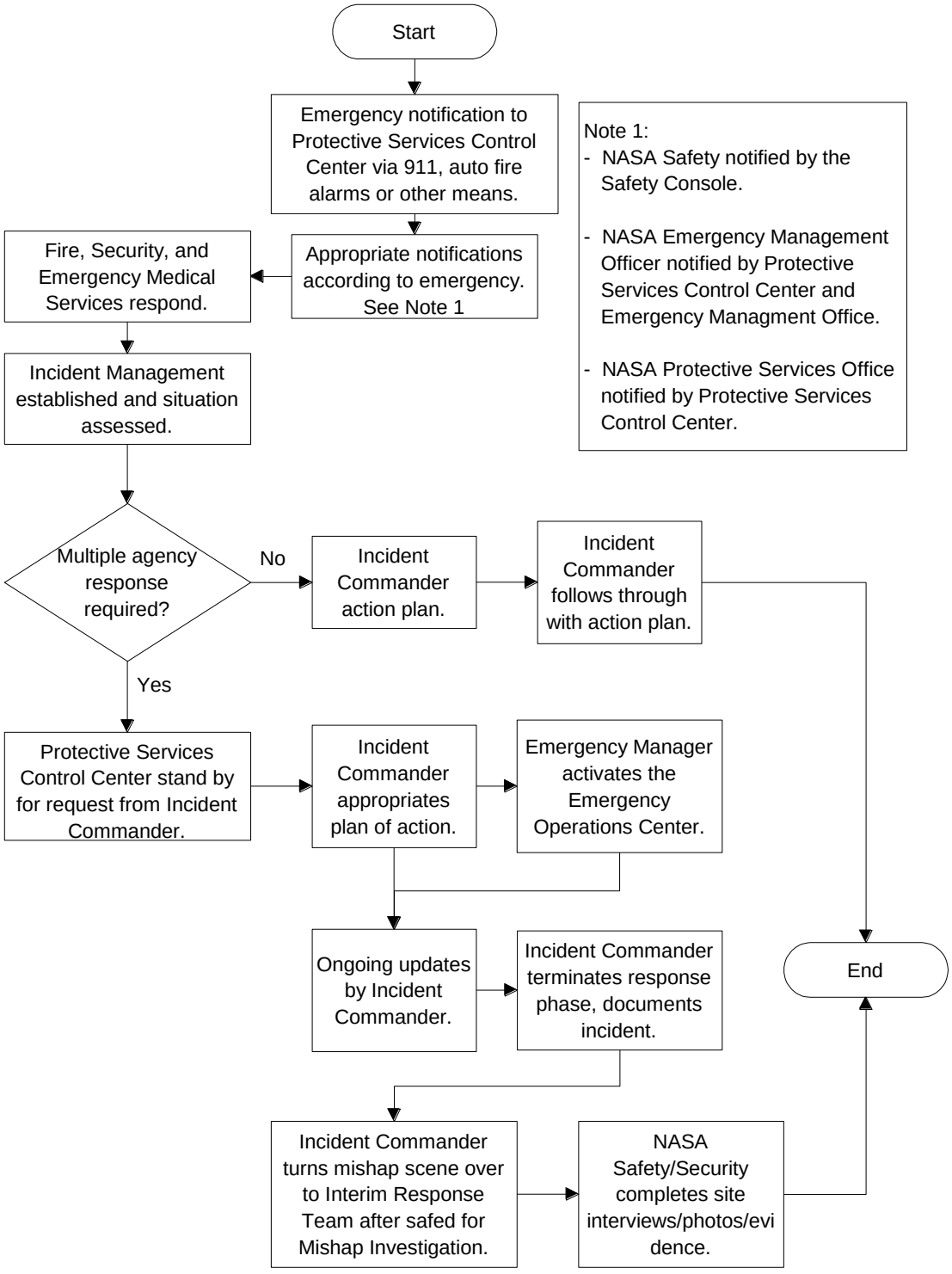

Figure 2, Emergency Response Flow Process

4.4 Recovery

Recovery is the activity or phase that involves restoring all systems to normal. Short-term recovery involves returning vital systems to minimum operating standards. Long-term recovery may take days, weeks, or years. Refer to KDP-KSC-P-3007.

4.4.1 Short- and long-term continuance of the KSC mission-critical functions, services, and infrastructure are addressed in organizational COOP documents. Although COOP is addressed in Chapter 6 of this document, specific requirements needed to sustain the identified mission essential infrastructure at KSC are not addressed in this CEMP. NPR 1040.1, NASA Continuity of Operations (COOP) Planning Procedural Requirements, provides amplification of specific COOP planning requirements.

4.4.2 A process for ensuring appropriate reporting on expenditures to the Office of the Chief Financial Officer is contained in KDP-P-3701, Continuity of Operation Planning (COOP) Emergency Funding.

4.4.3 KSC's contingency packages for responding emergency personnel include recognized badges for access to other Centers and KDP-KSC-P-3006 provides a list of personal items that emergency responders and ride out personnel should maintain.

4.4.4 The EOC identifies local and backup power generating and distribution facilities. Power generators are inventoried and a procedure for providing generators is delineated in KDP-KSC-P-3006.

4.4.5 At KSC portable and fixed satellite radio phone, high frequency radio, ham radio, and an emergency communication network have been established to ensure communications if power is lost. A secondary EOC is also identified as described in Section 4.3.1 above and in KDP-KSC-P-3002 and KDP-KSC-P-3018.

4.4.6 At KSC a special parking plan for Government vehicles and equipment is listed in KDP-KSC-P-3006.

4.4.7 The KSC EOC keeps periodic updates on damages and status of equipment in the WebEOC. Teleconferences with Headquarters EOC throughout recovery occur at least every 6 hours.

4.4.8 Appropriate ICS forms and records are maintained by the KSC EOC in WebEOC.

4.4.9 Disaster assistance can be requested by direction of the EOC through the Center Director.

CHAPTER 5. CENTER EMERGENCY MANAGEMENT RESPONSIBILITIES

The organization and assignment of responsibilities are listed in NPR 8715.2. All NASA offices listed in Chapter 6 of NPR 8715.2, are responsible to support the NASA EMP. The Center Director responsibilities that have been delegated to the NEMO are addressed in the following paragraphs.

5.1 National Aeronautics and Space Administration Emergency Management Officer

The KSC Center Director has delegated a NEMO, via KSC-DES-0056, Emergency Preparedness Officer, who is responsible for the management of the EMP. As the NEMO, this individual is assigned to the Spaceport Integration and Services directorate, Protective Services Office, and is responsible to perform the following:

5.1.1 Manage the EMP.

a. Ensure that all applicable individuals are properly trained to meet Federal regulatory requirements including the NIMS training requirements listed in KDP-KSC-P-3018. At KSC, the KPSC II Emergency Management Office maintains the documentation and assists in the completion of this type of training.

b. Provide educational awareness and training to the employees. Monthly online awareness bulletins and training programs are provided to KSC employees by the KPSC II. WebEOC and Ride out Team training are examples of other types of training provided to employees.

c. Develop, establish, and coordinate the CEMP as the Chair of the EMPC. Members on the EMPC have received NIMS training and are capable of planning exercises, reviewing plans, and evaluating capabilities. At KSC the EMPC is a chartered committee.

d. Establish and maintain a functional EOC and alternate EOC, capable of being mobilized within two hours during normal duty hours. At KSC the primary EOC is located in Building K6-0900, Room 2R21, and the alternate EOC is in Building M7-0355, Room 4297. Both locations are equipped with all the communications and emergency response capabilities necessary to support a disaster at KSC.

e. Ensure the existence of an emergency response capability that operates within the NIMS protocols. KSC employs a fully equipped fire, security, and emergency medical response capability 24 hours a day, 7 days a week. See KDP-KSC-P-3018.

f. Ensure the CEMP addresses required reporting of hazardous material releases to regulating authorities. See KDP-KSC-P-3008.

5.1.2 Provide program planning and response capability to:

a. Establish separate checklists and plans to cope with each known contingency. See KDPs 3001 through 3018 listed in Table A, and contractor standard operating procedures.

b. Ensure procedures are in place to evacuate persons requiring assistance due to physical disabilities. See KDP-KSC-P-3001, Warning, Alerting, and Evacuation.

c. Identify parameters and levels for emergency response contingencies. See KDP-KSC-P-3002.

d. Establish and maintain environmental response protocol for likely types of hazardous materials and waste spills. See KDP-KSC-P-3008.

e. Establish and maintain resource lists including local data systems and telecommunications networks. See KDP-KSC-P-3002.

f. Assess potential hazardous material exposure and potential health effects of facility operations that could result in a significant emergency or disruptive event. The NEMO works closely with the Environmental Assurance Branch to ensure that all hazardous locations, types, amounts, and storage requirements are known to the emergency responders. A copy of this information is provided to the NEMO.

g. Abate the hazards within the area of responsibility. At KSC these hazards are identified by walk-through, drive around, and recurring fire inspections. A Risk Analysis and Abatement Program are in place and ongoing to eliminate hazards.

h. Establish real-time Incident Action Plans that are developed in the EOC through the assistance of the IC. The IC, who is on the ground, at the scene, coordinates the Incident Action Plan with the IC staff and the EOC.

5.1.3 Conduct program reviews to:

a. Ensure all required offices are involved in Center emergency plan development. At KSC the CEMP is coordinated with all offices that have a role in emergency response.

b. Ensure the hazard and threat analyses, specific to the Center, are reviewed annually and updated as appropriate. At KSC the analyses are reviewed by the NASA Protective Services Office annually.

c. Ensure annual reviews of emergency preparedness and emergency response procedures are current and provide copies to the OPS. A memorandum reporting this is provided annually to the Assistant Administrator for the OPS no later than September 30.

d. Provide notice to the Assistant Administrator for the OPS whenever emergency response and recovery capabilities become degraded below baseline capabilities.

5.1.4 Oversee the EMP budget to:

a. Define budget requirements to the Director, Spaceport Integration and Services directorate.

b. Ensure that appropriate resources, personnel, and funding are sufficient for the EMP.

5.1.5 Monitor the emergency preparedness training. This includes the following:

a. Advocating funding to conduct mandatory and elective training for all personnel involved in the Center EMP. NEMO shall include applicable NIMS training for contracted fire department, emergency medical technician/paramedics, emergency management, and security and law enforcement personnel.

b. Identify and provide awareness training to the Center populace. This is accomplished at KSC by the KPSC II population awareness training program.

c. Identify and train essential personnel and response teams. Establish and maintain a roster of essential personnel as an emergency operating record. At KSC the KPSC II is responsible for training specialized teams, such as the Emergency Response Team, Hazardous Materials Response Team, High Angle Rescue Team, Astronaut Rescue Team, Confined Space Rescue Team, Crisis Negotiation Team, and specialized Emergency Medical Response Teams.

d. Establish an exercise design/evaluation group and conduct and document exercise and post exercise critiques. At KSC the Emergency Evacuation Training Assessment Group and the fire services training and inspection offices aid in accomplishing this task.

e. Conduct and document drills and exercises. Tabletop and full-scale exercises are conducted at KSC to maintain proficiency in emergency response capabilities.

f. Participate in local- and state-level drill and exercise activities, such as the Local Emergency Planning Committee. At KSC the NEMO represents KSC as a voting member of the Local Emergency Planning Committee, State Emergency Response Commission.

5.1.6 Establish and maintain the emergency response capability. This includes the following:

a. Adopt and implement the NIMS concepts and protocols in applicable emergency plans. At KSC, NIMS is mandated by the requirements of KDP-KSC-P-3018.

b. Provide public address and emergency warning systems/alerts in accordance with 29 Code of Federal Regulations 1910.165, Occupational Safety and Health Standards. KSC maintains and operates an effective Paging and Area Warning System that complies with 29 Code of Federal Regulations 1910.165.

c. Ensure baseline interoperable communications capabilities exist and are maintained for use during an emergency. This shall include:

(1) A high-frequency radio station and trained operators available during an emergency who participate in the Shared Resources and NASA High Frequency Network transmissions. At KSC this radio is located and operated in the primary EOC. Monthly tests with the Shared Resources network are accomplished by the KPSC II.

(2) Participation by designated senior leadership team members and emergency essential personnel in the Government Emergency Telecommunication System.

Government Emergency Telecommunication System cards have been issued to applicable senior managers at KSC. The NEMO manages this program at KSC.

(3) Availability of at least two satellite telephones assigned to designated emergency management personnel and ready for use at all times. At KSC satellite radio/phones are located on console in the primary EOC. KSC maintains 10 portable satellite telephones assigned to the NEMO for use in the CEMP.

(4) Ensuring the operability of critical telecommunication and information system assets, including the provision of backup power generation and other utility services. At KSC the emergency communications network is tested annually before the start of hurricane season. Backup power is provided in designated facilities by means of a utility annex or backup generators.

d. Responding to medical emergencies and providing medical surveillance. At KSC the full-time fire services organization is equipped with Advance Life Support ambulances staffed by licensed firefighter/paramedics.

e. Developing and maintaining a 24-hour emergency communication capability. KSC operates an emergency communication network with backup power, satellite radio phones, High Frequency radio, and Ham radio capabilities. During disasters KSC provides a NASA liaison who sits at a console in the Brevard County EOC.

f. Securing vital and classified records in accordance with the appropriate NASA policies. At KSC the NEMO works closely with the KSC Records Manager who is responsible for the preservation of records on KSC.

g. Provide the OPS with a roster of essential points of contact during and outside normal business hours. At KSC the NEMO provides a roster to the Headquarters NEMO and updates it as changes occur.

h. Request and provide Critical Incident Stress Debriefings to emergency responders and employees following a disaster in accordance with KNPR 3792.1, Employee Assistance Program (EAP) Psychological Support Preparedness Plan in the Event of a Critical Incident.

5.1.7 Perform damage assessment and recovery. KSC has established a specialized Damage Assessment and Recovery Team comprised of a multi-disciplined, uniquely specialized group of volunteers who accomplish the following:

a. Coordinate development and integration of information systems disaster recovery plans for critical services and missions.

b. Establish protocol to report damage assessment and forward assessment to local senior management as well as the OPS or the Headquarters EOC, if mobilized. At KSC the Damage Assessment and Recovery Team assesses damages and reports the damages to WebEOC. The applicable engineering and facilities personnel from the institutional services contract will compile all the damages, provide an estimated cost, and provide a list to senior management, through the NEMO, to the Director of Spaceport Integration and Services.

c. Establish criteria for obtaining the resources necessary to recover from an emergency situation.

d. Develop and implement mutual aid agreements with local, state, and other Federal agencies, and the appropriate emergency response authorities. At KSC mutual aid agreements that involve fire, security, emergency medical, and emergency management are developed and maintained by the NASA Protective Services Office.

e. Prioritize post event damage assessment and immediate facility dispositions (i.e., restore, shut-down, or vacate). At KSC the Spaceport Integration and Services directorate, through the institutional services contract, recommends restoration, shutdown, or vacating a facility based on the assessed damages.

f. Provide preincident preparations and post incident critiques and after-actions reports. At KSC each incident is briefed to the NASA Protective Services Office for dissemination to the appropriate levels of management.

CHAPTER 6. CONTINUITY OF OPERATIONS PLANNING

6.1 Compliance

6.1.1 NPR 1040.1 provides amplification of specific COOP requirement details. The intent of Chapter 6 is to link emergency response with continuity planning. Some situations NEMO shall dictate simultaneous operations in both the emergency response and COOP arenas. The goal is to avoid conflicts over the use of people, resources, and critical systems necessary to achieve successful outcomes in both readiness and continuity. COOPs may be developed as either an annex to the master emergency management plan or as a stand-alone document. At KSC, all COOPs are stand-alone documents.

6.1.2 KSC complies with NPR 1040.1, and NPD 1040.4, NASA Continuity of Operations (COOP), Mission essential functions, delegations of authority, and management succession structure to support decision-making during an emergency are covered in other NASA documents such as NPD 1000.3, The NASA Organization. Table E provides a crosswalk of NASA COOP requirements and where they are located. At KSC the COOP coordinator is the NEMO. NPR 1040.1 is the prescribing directive for COOP at KSC.

Table E: Continuity of Operations Requirements Crosswalk

Requirement	Document Number
Direction, Control and Authority over KSC	KDP-KSC-P-3002 NASA Policy Directive 1040.4, NPR 1040.1
Delegation of Authority, Succession, and Continuity of Government	NASA Policy Directive 1000.3
Developing Mutual Aid and Memorandums of Agreement	CEMP Chapter 2.3.1, 4.1.g., and 5.1.6
Coordination with Local Support Organizations, other Centers, State, and Federal Agencies	CEMP, Chapter 3
Transportation, Specialized Equipment, Logistics, and Real Property	CEMP, Chapter 3 KNPR 4000.1
Emergency Preparedness, Response, and Recovery	CEMP, Chapter 4 KDP-P-KSC-3001 through KDP-P-KSC-3018
Coordinating Alerts, Warnings, and Evacuation Procedures	KDP-KSC-P-3001
Communications	KDP-KSC-P-3002
Emergency Funding	KDP-P-3701, COOP Emergency Funding

Appendix A. Definitions of Terms

Control: The procedures, techniques, and methods used in the mitigation of a hazardous material incident, including containment, extinguishment, and confinement.

Contingency Plan: A developed document identifying and cataloging all elements required to respond to an emergency, defining responsibilities and specific tasks, and serving as a response guide.

Disaster: The occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property, resulting from any natural or technological event.

Emergency: Any situation that is threatening and requires quick response.

Emergency Management Phases:

1. Mitigation: Deals with any activities that prevent an emergency, reduce the chance of an emergency happening, or reduce the damaging effects of unavoidable emergencies.

2. Preparedness: Includes developing plans for what to do, where to go, or who to call for help before an event occurs.

3. Response: Personnel who are involved in responding to and controlling an emergency.

4. Recovery: Includes actions taken to return to normal operations following an emergency.

Emergency Management Office: The NASA Protective Services Contractor Emergency Management Office.

Emergency Management Planning Committee (EMPC): A KSC chartered committee designated in the KSC Business World in compliance with KNPD 1150.24, KSC Councils, Boards, and Committees. This group of individuals brings a distinct area of expertise or area of concern to emergency preparedness situations in order to use a consistent integrated approach to prepare for natural and technological emergencies at KSC. The EMPC is responsible for reviewing current emergency preparedness procedures and establishing policy in all phases of emergency management for natural and technological hazards. The NASA Emergency Management Officer is the chair of the EMPC.

Emergency Responders: KSC Firefighters, security, paramedics, emergency medical technicians, public health professionals, and others as required, dispatched to the scene of an incident site.

Emergency Support Function (ESF): ESFs are groupings of capabilities into an organizational structure that provides the support, resources, program implementation, and services that are most likely to be needed during an incident. ESFs also serve as the primary operational-level mechanism that provides support during an incident.

Hazardous Operations: Any operation or other work activity that has a high potential to result in loss of life, serious injury to personnel or public, or damage to property due to material or equipment involved or the nature of the operation/activity itself.

High Value Resources: Launch vehicles, boosters, satellites, orbital flight hardware, or one of a kind Ground Support Equipment.

Protective Services Control Center: This control center is located at the KSC Launch Control Center, Building K6-0900, Room 2P10. This area receives all emergency calls (911) made on KSC and dispatches/notifies emergency responders according to Standard Operating Procedures.

Major Disaster: Any natural or technological catastrophe in any part of the United States or its territories which, in the determination of the President, causes damage of sufficient severity and magnitude to warrant assistance under **Title 42, United States Code, Sections 5121-5204**.

Mutual Aid Agreements: Arrangements between organizations, either public or private, for reciprocal aid and assistance in case of emergencies too great to be dealt with unassisted.

NASA Emergency Management Officer (NEMO): NASA person responsible for emergency management on KSC, and is delegated in the KSC Business World as the NEMO and Center COOP Coordinator.

NASA Test Director (NTD): The NTD is the NASA representative on duty for Launch Processing. The NTD coordinates and notifies emergency response forces in the Launch Complex 39 area during specific NASA-managed operations. Once the Fire Chief/Incident Commander arrives and establishes Incident Command, the NTD shall then continue to coordinate with and provide information and support to the Incident Commander.

NASA Protective Services Office: Includes Center Security, Emergency Management, Fire Protection, Authority Having Jurisdiction, and the Continuity of Operations Coordinator.

Natural Disaster: An act of nature, such as a hurricane, tornado, or earthquake.

National Incident Management System (NIMS): The Federal multi-layered command and control system used by the Incident Commander to manage KSC emergency responses.

Office of Protective Services: The NASA focal point for policy formulation, oversight, coordination, and management of Agency security, counterintelligence, counterterrorism, emergency management, continuity of operations, fire services, fire prevention, and National Security programs.

Technological Disaster: A disaster resulting from technical operations or man-made technologies such as fires, hazardous materials leaks or spills, and chemical explosions.

Termination: That portion of Incident Management, following termination of all emergency response actions, in which personnel are involved in documenting safety procedures, site operations, hazards faced, and lessons learned from the incident. Termination is divided into three phases: debriefing the incident, post incident analysis, and critiquing the incident.

Vulnerability: The degree to which people, property, the environment, or social and economic activity, in short, all elements at risk, are susceptible to injury, damage, disruption, or loss of life.

APPENDIX B: ACRONYMS

CEMP	Comprehensive Emergency Management Plan
COOP	Continuity of Operations Plan
EAP	Employee Assistance Program
EOC	Emergency Operations Center
EMP	Emergency Management Program
EMPC	Emergency Management Planning Committee
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
IC	Incident Commander
ICS	Incident Command System
KDP	Kennedy Documented Procedure
KSC	Kennedy Space Center
KNPD	Kennedy NASA Policy Directive
KNPR	Kennedy NASA Procedural Requirement
KPSC II	Kennedy Protective Services Contract II
NASA	National Aeronautics and Space Administration
NEMO	NASA Emergency Management Officer
NIMS	National Incident Management System
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements
NRF	National Response Framework
NTD	NASA Test Director
OPS	Office of Protective Services
WebEOC	Web Based Emergency Operations Center